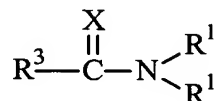


WHAT IS CLAIMED IS:

1. An aqueous polyurethane dispersion comprised of water having therein dispersed polyurethane particles and a nonvolatile non-reactive property enhancing water-soluble compound.

2. The aqueous polyurethane dispersion of Claim 1, wherein the nonvolatile non-reactive property enhancing water-soluble compound is

(a) an amido compound of the formula:



where X is NH, O or S and each R¹ is independently H or a 1-35 carbon containing monovalent radical that is aliphatic, aromatic or combination thereof, which may be substituted with up to five atoms selected from the group consisting of oxygen, nitrogen, sulfur, phosphorous, halogen and combinations thereof and R³ is -N(R¹)₂ or -C(R¹)₃;

(b) a salt of the amido compound;

(c) a sugar;

(d) melamine; or

(e) combination thereof.

3. The aqueous polyurethane dispersion of Claim 1, wherein the nonvolatile non-reactive property enhancing water-soluble compound is urea, thiourea, N,N'-dimethylurea, N,N-dimethylurea, a C₆ sugar, a C₁₂ sugar, guanidine, thioguanidine, or combination thereof.

4. The aqueous polyurethane dispersion of Claim 1, wherein the nonvolatile non-reactive property enhancing

water-soluble compound is urea, glucose, sucrose,
N,N'dimethylurea, N,N-dimethylurea or combination thereof.

5 5. The aqueous polyurethane dispersion of Claim
1, wherein the polyurethane particles are a nonionizable
polyurethane.

6. The aqueous polyurethane dispersion of Claim
5, wherein the polyurethane particles are of an aromatic
polyisocyanate.

10 7. A method of forming an improved polyurethane
dispersion comprising,

15 (a) reacting in water an isocyanate terminated
polyurethane prepolymer and a chain extending
agent until substantially all of the
isocyanate has been reacted to form a
polyurethane dispersion and

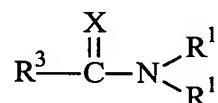
 (b) adding to the polyurethane dispersion a
nonvolatile, non-reactive, property enhancing,
water soluble compound to form the improved
polyurethane dispersion.

20 8. The method of Claim 7 wherein the property
enhancing, water soluble compound is added immediately after
the dispersion has been formed causing the temperature of the
dispersion to decrease.

25 9. A polyurethane comprised of a polyurethane
having therein a nonvolatile, non-reactive, property
enhancing water-soluble compound, a decomposition product of
the non-reactive, property enhancing water-soluble compound
or a reaction product of the non-reactive, property enhancing
water soluble compound with another compound other than the
30 polyurethane or precursors that form the polyurethane.

10. The polyurethane of Claim 9, wherein nonvolatile non-reactive property enhancing water-soluble compound is

5 (a) an amido compound of the formula:



where X is NH, O or S and each R¹ is independently H or a 1-35 carbon containing monovalent radical that is aliphatic, aromatic or combination thereof, which may be substituted
 10 with up to five atoms selected from the group consisting of oxygen, nitrogen, sulfur, phosphorous, halogen and combinations thereof and R³ is -N(R¹)₂ or -C(R¹)₃;

(b) a salt of the amido compound;

(c) a sugar;

15 (d) melamine;

(e) a decomposition of the aforementioned;

(f) a reaction product of the aforementioned; or

(g) a combination thereof.

11. The polyurethane of Claim 9, wherein the
 20 nonvolatile non-reactive property enhancing water-soluble compound is urea, thiourea, N,N'-dimethylurea, N,N-dimethylurea, a C₆ sugar, a C₁₂ sugar, guanidine, thioguanidine, a decomposition product of the aforementioned, a reaction product of the aforementioned or combination
 25 thereof.

12. The polyurethane of Claim 9, wherein the nonvolatile non-reactive property enhancing water-soluble

compound is urea, glucose, sucrose, N,N'dimethylurea, N,N-dimethylurea, a decomposition product of the aforementioned, a reaction product of the aforementioned or combination thereof.

5 13. The polyurethane of Claim 9, wherein the polyurethane has therein the nonvolatile, non-reactive, property enhancing water-soluble compound.

10 14. The polyurethane of Claim 13, wherein the nonvolatile, non-reactive, property enhancing water-soluble compound is urea, glucose, sucrose, N,N'dimethylurea, N,N-dimethylurea or combination thereof.

15 15. The polyurethane of Claim 9, wherein the polyurethane is tackier than a like polyurethane without the nonvolatile, non-reactive, property enhancing water-soluble compound.

 16. The polyurethane of Claim 13, wherein the nonvolatile, non-reactive, property enhancing water-soluble compound remains in the polyurethane after being exposed to water.

20 17. The polyurethane of Claim 9, wherein the % elongation of the polyurethane is at least about 5% greater than a like polyurethane lacking the nonvolatile, non-reactive, property enhancing water-soluble compound.

25 18. The polyurethane of Claim 9, wherein the tensile strength of the polyurethane is at least about 5% greater than the tensile strength of a like polyurethane lacking the nonvolatile, non-reactive, property enhancing water-soluble compound.

30 19. A method of forming a polyurethane object comprising:

 (a) forming an object from an aqueous polyurethane dispersion comprised of water and polyurethane

particles and having therein a nonvolatile, non-reactive property enhancing water soluble compound and

5 (b) heating the formed object to a temperature such that the nonvolatile, organic property enhancing compound decomposes or reacts with a component of the aqueous polyurethane dispersion other than the polyurethane particles forming a resultant nonvolatile compound in the polyurethane
10 object.

20. The method of Claim 19, wherein the NNPEW reacts with an additive selected from the group consisting of rheological modifiers, defoamers, antioxidants, pigments, water insoluble fillers, dyes, and combinations thereof.

15 21. The method of Claim 19 wherein the NNPEW is urea, thiourea, N,N'-dimethylurea, N,N-dimethylurea, a C₆ sugar, a C₁₂ sugar, guanidine, thioguanidine, or combination thereof.